

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

WHAT IS CLAIMED IS:

1. (currently amended) A method for controlling a motor vehicle drivetrain system, which motor vehicle drivetrain system has a drivetrain (122) and a combustion engine (124) for the purpose of driving drivetrain (122) and which motor vehicle drivetrain system has an electronic engine control unit (132) that controls the combustion engine (124) and an electronic transmission control unit (110) for the purpose of controlling at least one of first or second torque transmission device (114, 116) or gearbox device (102, 106) where the electronic engine control unit (132) has a signal output connected to the transmission control unit (110), the signal output for transmitting signals to the transmission control unit (110), and a signal transmission link connected to the transmission control unit (110), the link for receiving signals from the transmission control unit (110), comprising: determining, using the electronic engine control unit (132) and the signals received or transmitted by the electronic engine control unit (132), whether there is a functional impairment in the first or second torque transmission device (114, 116) or, actuation device (106), or the electronic transmission control unit (110); and limiting, using the electronic engine control unit (132), maximum permissible engine torque of the combustion engine when the electronic engine control unit (132) has determined a functional impairment in the first or second torque transmission device (114, 116) or, the actuation device (106), or the electronic transmission control unit (110), wherein the second torque transmission device (116) is an electric motor.

2. (currently amended) A method for controlling a motor vehicle drivetrain system, which motor vehicle drivetrain system has a gearbox device (102, 106) arranged in a drivetrain (122) or at least one torque transmission device (114) arranged in drivetrain (122) where the motor vehicle drivetrain system has a combustion engine (124) for the purpose of driving the drivetrain

(122) as well as an electronic engine control unit (132) that controls the combustion engine (124) and an electronic transmission control unit (110) for the purpose of controlling the gearbox device (102, 106) or the at least one torque transmission device (114), comprising: determining whether the electronic transmission control unit (110), actuation device (106), or the torque transmission device (114) is functionally impaired; and limiting maximum permissible engine torque of the combustion engine (124) when it is determined that the electronic transmission control unit (110), the actuation device (106), or the torque transmission device (114) is functionally impaired, wherein the actuation device (106) is an electric motor.

3. (previously presented) A method for controlling a motor vehicle drivetrain system, which motor vehicle drivetrain system has a gearbox device (102, 106) arranged in a drivetrain (122) or at least one torque transmission device (114) arranged in drivetrain (122) where the motor vehicle drivetrain system has a combustion engine (124) for the purpose of driving the drivetrain (122) as well as an electronic engine control unit (132) that controls the combustion engine (124) and an electronic transmission control unit (110) for the purpose of controlling the gearbox device (102, 106) or at least one torque transmission device (114), comprising: determining whether between the electronic transmission control unit (110) and the electronic engine control unit (132) there is a data or signal communication or there is a functioning data or signal communication or whether the electronic transmission control unit (110) is functionally impaired or whether the gearbox device (102, 106) or the torque transmission device (114) is functionally impaired; ascertaining a speed of the vehicle (100), a status of a brake (140) of the motor vehicle (100), torque for the idle controller, or a position for a selection lever that can be actuated by a driver of the vehicle; and, turning off the combustion engine (124) when it is determined that the electronic transmission control unit (110) is functionally impaired, or there is a functional impairment in the gearbox device (102, 106) or in the torque transmission device (114) and when it is ascertained that the brake (140) of motor vehicle (100) is actuated, or the vehicle speed is less than a predetermined speed limit, or the engine speed is less than a predetermined boundary, or the idle controller torque is greater than a predetermined boundary value, or the selection lever

is neither in the park position nor in the neutral position.

4. (previously presented) The method according to Claim 2, further comprising: determining by means of the electronic engine control unit (132) whether there is a data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) or whether the electronic transmission control unit (110) is functionally impaired or whether the gearbox device (102, 106) or the torque transmission device (114) are functionally impaired or limiting the maximum permissible engine torque by means of the electronic engine control unit (132) or turning off the combustion engine (124) by means of the electronic engine control unit (132).

5. (previously presented) The method according to Claim 3, further comprising: determining by means of the electronic engine control unit (132) whether there is a data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) or whether the electronic transmission control unit (110) is functionally impaired or whether the gearbox device (102, 106) or the torque transmission device (114) are functionally impaired; or limiting the maximum permissible engine torque by means of the electronic engine control unit (132); or turning off the combustion engine (124) by means of the electronic engine control unit (132).

6. (withdrawn) A method for controlling a motor vehicle drivetrain system, which has a drivetrain (122) that can be loaded by means of a combustion engine (124) as well as an electronic engine control unit (132) for the purpose of controlling the combustion engine (124) and an electronic transmission control unit (110), whereby the electronic engine control unit (132) determines by means of a predetermined characteristic whether it has lost communication with the electronic transmission control unit (110) and where the electronic engine control unit (132) limits the maximum permissible engine torque when it ascertains that it has lost communication with the electronic transmission control unit (110).

7. (withdrawn) The method according to Claim 6, characterized in that the electronic transmission control unit (110) will alter an alive counter in a predetermined manner if there is a

data or signal communication or a functioning data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or if the electronic transmission control unit (110) is functioning and/or if the signal transmission link is properly functioning, while the electronic engine control unit (132) determines whether the alive counter is altered in the predetermined manner and if the alive counter is not altered in the predetermined manner or is not altered correctly, it ascertains that there is no data or signal communication and/or that there is a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or ascertains that the electronic transmission control unit (110) and/or the signal transmission link are functionally impaired, in particular, that they have failed.

8. (withdrawn) The method according to Claim 7, characterized in that the alive counter is a signal that represents a numerical value and that at predetermined time intervals a CAN bus is transmitted from the electronic transmission control unit, whereby the particular following signal is altered in a predetermined manner when compared to the particular preceding one, where the electronic engine control unit (132) determines whether this signal is altered in the predetermined manner and where it ascertains, if there is no change or if there is no correct change according to the predetermined manner, that there is no data or signal communication or a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine control unit (132) and/or ascertains that the electronic transmission control unit (110) and/or the signal transmission link is functionally impaired, in particular, has failed.

9. (withdrawn) The method according to Claim 8, characterized in that one determines whether the electronic transmission control unit (110) transmits predetermined signals to a CAN bus system (142) where, when it is ascertained that the electronic transmission control unit (110) does not transmit these predetermined signals to a CAN bus system (142), it is then ascertained that there is no data or signal communication or a functionally impaired data or signal communication between the electronic transmission control unit (110) and the electronic engine

control unit (132) and/or it is ascertained that the electronic transmission control unit (110) has failed and/or that the signal transmission link has failed.

10. (withdrawn) The method according to Claim 9, characterized in that the maximum permissible engine torque is limited to an upper boundary value, the engine torque boundary, and that there is provided precisely one engine torque boundary to limit the maximum permissible engine torque.

11. (withdrawn) The method according to Claim 10, characterized in that the maximum permissible engine torque is limited to an upper boundary value, the engine torque boundary, and that several engine torque boundaries are provided to limit the maximum permissible engine torque.

12. (withdrawn) The method according to Claim 11, characterized in that the engine torque boundary for the maximum permissible engine torque or any engine torque boundary is a constant value for the maximum permissible engine torque.

13. (withdrawn) The method according to Claim 12, characterized in that the engine torque boundary for the maximum permissible engine torque or any or at least one engine torque boundary for the maximum permissible engine torque is a functional interrelationship.

14. (withdrawn) The method according to Claim 13, characterized in that in order to limit the maximum permissible engine torque, one selects an engine torque boundary for the maximum permissible engine torque from a plurality of predetermined engine torque boundaries for the maximum permissible engine torque and that the maximum permissible engine torque is limited in accordance with this selected engine torque boundary.

15. (withdrawn) The method according to Claim 14, characterized in that the engine torque boundary for the maximum permissible engine torque is selected or determined as a function of at least one operating parameter of the motor vehicle and that the maximum permissible engine torque is limited in accordance with this selected or determined engine torque boundary.

16. (withdrawn) The method according to Claim 15, characterized in that the engine torque boundary for the maximum permissible engine torque is selected or determined as a function of

the position of a part of the motor vehicle that can be actuated by the driver and that the maximum permissible engine torque is limited in accordance with this selected or determined engine torque boundary.

17. (withdrawn) The method according to Claim 16, characterized in that the engine torque boundary for the maximum permissible engine torque is selected or determined as a function of the position of a gas pedal of the motor vehicle and that the maximum permissible engine torque is limited in accordance with this selected or determined engine torque boundary.

18. (withdrawn) The method according to Claim 17, characterized in that there is provided a service brake (140) of the motor vehicle (100) that can generate a predetermined braking torque and that the engine torque boundary for the maximum permissible engine torque is set at a value that is a function of that braking torque.

19. (withdrawn) The method according to Claim 18, characterized in that the engine torque boundary for the maximum permissible engine torque is set at a value that is lesser than or equal to the quotient from the braking torque that can be generated by the service brake (140) and the currently given and/or maximally or minimally selectable gear ratio in the drivetrain (122) between the engine output shaft and the driving axles (130) of the motor vehicle (100).

20. (withdrawn) The method according to Claim 19, characterized in that the electronic transmission control unit (110) sends out at least one signal which indicates whether there is a functional impairment in the gearbox unit (102, 106) and/or the torque transmission device (114) where the electronic engine control unit (132) monitors this signal to determine whether there is a functional impairment in the torque transmission device (114, 116) and/or the gearbox device (102, 106) or in the unit comprising the torque transmission device (114, 116) and/or the gearbox device (102, 106) and ascertains that such a functional impairment exists when this signal indicates a functional impairment of the torque transmission device (114, 116) and/or a gearbox device (102, 106).

21. (previously presented) A safety system for a motor vehicle (100), where the safety system can receive, transmit and process electronic signals and has a memory device (136) in which

there is stored at least one control program (138) that controls a method according to Claim 1.

22. (previously presented) The safety system according to Claim 21, wherein the safety system (134) comprises an electronic engine control unit (132) and the electronic engine control unit (132) can receive, transmit and process electronic signals and has the memory device (136) in which there is stored at least the control program (138) that controls said method.

23. (previously presented) A motor vehicle with a drivetrain system, which drivetrain system has a drivetrain (122) coupled with a combustion engine (124) and when in operation is loaded by the combustion engine (124) and that on a power output side is coupled with wheels (126, 128) of the motor vehicle (100) so that wheels (126,128) can be driven by means of combustion engine (124), whereby in drivetrain (122) there is arranged a transmission (102) that can be actuated by means of a gearbox actuation device (106) by means of which a gear ratio given in the drivetrain (122) between the combustion engine (124) and the drivable wheels (126, 128) can be altered where, at least there is in the drivetrain (122) a starting clutch (114) that can be actuated by means of a clutch actuation device (116) and where the drivetrain system has an electronic engine control unit (132) for the purpose of controlling the combustion engine (124) and an electronic transmission control unit (110) to control the gearbox device (102, 106) or a gearbox actuation device (106) or the starting clutch (114) or clutch actuation device (116), whereby a brake (140) is provided for the purpose of braking the motor vehicle (100) where there is provided an idle controller that controls the combustion engine (124) or a fuel calculation member in operation in such a way that an engine torque is increased when an engine speed falls below an idle speed in order to raise the engine speed to or above that idle speed and where an engine output as well as selectable gear ratios of the drivetrain (122) and a regulatory function of the idle controller controlling the engine speed are such that when a gear ratio is selected and the drivetrain (122) is engaged, the engine torque could be raised to a value such that a braking torque of the brake (140) would not suffice to bring about a deceleration of the device (100), whereby, there is provided a safety system (134) according to Claim 21, which ensures that motor vehicle (100) can be braked by means of brake (140) with the drivetrain (122) engaged

Attorney Docket No. LUKP119US
U.S. Patent Application No. 10/711,404
Reply to Office Action of December 9, 2009
Date: February 3, 2010

and with each gear ratio that can be selected in drivetrain (122).